

Guidelines on Thawing of Food

A public health document prepared by:
National Environment Agency

INTRODUCTION

When food is frozen at 0°C and below, some of the bacteria found in the food may be inactive but are still alive. When frozen food is thawed, its core temperature rises and bacteria may start to be active again and multiply.

Frozen food should therefore not be left to thaw at room temperature, to prevent food poisoning bacteria that may be present from multiplying to high levels. Frozen food is recommended to be thawed in the chiller or by using a microwave oven. They can also be thawed under running water or in tap water but it must be placed in a leak-proof package or container.

Food handlers must plan ahead to allocate sufficient time and space; and use the appropriate method of thawing. Harmful bacteria can grow in food that is not thawed properly. **Keep food safe by using a safe thawing method and by cooking thawed food thoroughly.**

GUIDELINES

1) Thawing of Food

- a) Thaw food thoroughly before cooking. Frozen or partially frozen food will require longer cooking time. The external surfaces of this food could be cooked, but the inner portion might remain uncooked and harmful bacteria within the food may not be killed.
- b) Check for ice crystals in the food using your hand or a skewer. If food is not fully thawed, continue to thaw the food until no ice crystals are present. Test again before cooking or reheating. For poultry, check that the joints are flexible.
- c) Cook thawed meat right away and do not refreeze thawed food. Improper handling and refreezing of food may lead to the growth of bacteria.
- d) Thaw only the amount of food you require for cooking.

- e) Follow the food manufacturer's instructions on how to prepare food that does not need to be reheated after thawing, e.g. cheesecakes. When possible, thaw such food in the refrigerator.
- f) Remember to separate raw meat from cooked or ready-to-eat food to prevent cross-contamination when thawing food.
- g) Remember not to thaw food on the floor.

2) Three Ways to Thaw Food Safely

a) Thawing in the Refrigerator or Chiller Room

- i. Plan ahead for sufficient time and space to defrost small amounts of food in the refrigerator. If you have limited space in your chiller, apportion food into smaller quantities before freezing. Place the required amount in the chiller when you need to thaw the food.
- ii. Thaw food in the refrigerator or chiller room at all times until it is used or consumed. Thawing food in the refrigerator or chiller room will keep it at a safe temperature.
- iii. Thaw raw food at the lowest shelf of the refrigerator or chiller room or below ready-to-eat food to prevent cross-contamination. Place food on a tray or in a container to prevent drippings from meat and poultry onto other food.

b) Thawing in Microwave Oven

- i. Place food in the microwave oven on the 'defrost' setting.
- ii. Stir or turn food over to facilitate thawing.
- iii. Cook the food immediately after thawing. Some areas of the food may become warm and begin to cook during the thawing process, bringing the food to the "Temperature Danger Zone".
- iv. Refrain from thawing large food items in the microwave.
- v. Clean the microwave thoroughly after using it for thawing.

c) Thawing under Running Water or in Cold Water

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Updated as at 31 Dec 2016. For latest updates, please refer to www.nea.gov.sg

- i. Place food to be thawed in a clean leak-proof package or plastic bag. Put the package in a clean container and thaw the food under running water, or submerge the package in a container of clean tap water, changing the water every 30 minutes as the food continues to thaw. Do not place food directly in the sink or into container of water without packaging it.
- ii. Cook thawed food immediately.
- iii. Avoid cross-contamination from water dripping off the food or splashing onto other food, preparation surfaces and utensils.
- iv. Thaw food without opening the package to prevent contamination.
- v. Ensure that the sink is clean and empty before using it to thaw food under running water. The sink should be cleaned and sanitised after being used for thawing.

MORE INFORMATION

For more information on hygiene guidelines, please visit the National Environment Agency's website at www.nea.gov.sg.